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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/037,068	11/07/2001	Hans Broich	60,152-942	6194

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EXAMINER
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SHAPIRO, JEFFERY A

ART UNIT	PAPER NUMBER
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3653

DATE MAILED: 10/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/037,068

Applicant(s)

BROICH ET AL.

Examiner

Jeffrey A. Shapiro

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 32-38 and 40-55 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 32-38 and 40-55 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/036,752.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

1. Claim 39 is withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 7.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 36 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear with respect to what the forwarding device is simultaneously delivering. In other words, simultaneous to what?

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 32-38 and 40-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grafius (US 4,462,508). Grafius discloses the following.

As described in Claims 32 and 54;

1. a basic supply module (20) including a supply chamber for storing elements and a forwarding device (24) proximate to said supply chamber and positioned to receive elements from an output of said supply chamber for moving elements from the supply chamber;
2. a first interchangeable mechanical sorting device (40) of the type providing a continuous sorting of elements for producing a continuous element stream,
3. said interchangeable mechanical sorting device located proximate to said forwarding device and positioned to receive the elements from said forwarding device (see figures 1 and 2),
4. said first interchangeable mechanical sorting device being configured for receiving and sorting the first configured elements from said forwarding device and delivering only correctly positioned ones of the first configured elements to a transport device of the type providing a continuous flow of elements to a manufacturing system for transporting correctly positioned ones of first configured elements to the manufacturing system (note that the parts (100) of Grafius are transported from the trough (24) to the vibratory bowl (40), which sorts them, and sends them in an orderly fashion to chute (70) and gear (80)),
4. wherein said first interchangeable mechanical sorting device is removably mounted on said basic supply module and mechanically affixed thereto with a rapid disconnect coupler;

(Note that the supply module (20) and the vibratory bowl (40) appear to be separate from each other and that they appear to be removably mounted. Note also that it is well known to bolt machinery down on bolts with mating nut-type fasteners, and that electric plugs and pneumatic connectors are also well-known to be easily removable.)

5. and further wherein said first interchangeable mechanical sorting device is readily replaceable with a like second interchangeable mechanical sorting device configured for sorting and supplying second configured elements;

(Note that it would be obvious to one ordinarily skilled in the art to replace one vibratory bowl set to separate a certain type of part with another vibratory bowl set to separate another type of part.)

As described in Claim 33;

6. said first interchangeable mechanical sorting device is configured to concurrently sort at least two dissimilarly configured elements;

(Note that the vibratory bowl (40) of Grafius separates bent parts from straight parts—therefore, sorting two dissimilarly configured elements—note also that it is by definition that sorting parts would imply that there are two different types of parts, otherwise, they would not need to be separated. See also Graham (US 6,257,392) which illustrates several different vibratory bowls set for several different parts)

As described in Claim 34;

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7. said supply module includes at least two supply chambers, each of said supply chambers for receiving a differently configured element to be stored; (Note that it would have been obvious to provide multiple supply chambers, as described in McMillan et al (US 3,123, 217), for example. See figure2, noting the use of two supply chambers (22)—the suggestion/reason would have been to provide more throughput or to handle more types of parts. McMillan et al and Grafius are analogous art because they both deal with sorting parts with vibratory bowls.)

As described in Claim 35;

8. said supply chamber receives therein a mixture of dissimilar elements to be sorted (again, note that bent parts are dissimilar from bent ones);

As described in Claim 36;

9. said forwarding device simultaneously delivers the mixture of elements to said first interchangeable mechanical sorting device (note that the trough of Grafius appears to deliver parts to the vibratory bowl as the vibratory bowl sorts items);

As described in Claim 37;

10. said basic supply module is affixed to a mobile installation platform; (Note that it would have been obvious to one ordinarily skilled in the art to have made a stationary module mobile. For example, see Hawkins et al, Chaparro et al, and Rude et al, noting that the suggestion/motivation

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would have been to provide portability to the modules, as shown in the prior art. Note that Hawkins, Chaparro, Rude, and Grafius are all analogous because they all concern sorting by vibratory bowl);

As described in Claims 38, 40 and 41;

11. said mobile installation platform includes functional components affixed thereto including:

a. an electrical control cupboard including a display device;

(Note that it would have been obvious to provide a control cabinet such as illustrated by control unit (19) of Hirsch and to provide a display so as to allow for displaying various functions required by the controller to be programmed or in support of a camera vision device which inspects the items as they are sorted. Again, see Hirsch, display (82), for example.)

b. a pneumatic supply;

(Note that it would have been obvious to provide a pneumatic supply so as to run a pneumatically driven device, such as described in Chaparro et al.)

c. an oiling device;

(Note that it would have been obvious to provide an oiling device, as mechanical equipment, such as in Grafius, requires oiling, as well as the commonly known fact that metallic parts sometimes require oiling to prevent oxidation (rust) from occurring.)

d. at least one safety protection device;

(Note that it is well-known to provide an emergency cut-off switch to industrial machinery, as it is an OSHA requirement.)

As described in Claim 42;

12. said forwarding device includes acoustic insulation;

(Note Hawkins et al, which illustrates in figure 1, a housing that encloses the mechanical sorting device (13), a basic supply (12), and several receptacles (16), of which it can be argued that the housing acoustically insulates the noise produced by the vibratory bowl (51), for example from the outside of the housing. Note that Hawkins et al sorts diamonds, but that other gemstones might require sorters with different calibrations, for example.)

As described in Claim 43;

13. said forwarding device includes a safety device cover preventing access to said forwarding device during operation thereof, and a switch activated by said cover such that when said cover is opened said switch operates to deactivate said forwarding device;

(Note that it would have been obvious to provide a switch which automatically shuts down the apparatus if the cover is opened. Again, this is an emergency stop, and is required by OSHA for such industrial equipment.)

As described in Claim 44;



14. said system includes a plurality of interchangeable mechanical sorting devices;

(Note that it would have been obvious to provide several sorting devices rather than one, so as to increase throughput.)

As described in Claim 45;

15. said forwarding device is oriented to receive like ones of first configured elements from said supply chamber and to distribute the like elements to be sorted to all of said interchangeable mechanical sorting devices;

(Note that the forwarding device of the system of Grafius behaves in this manner. Note again, that it would have been obvious to provide several paths to distribute to several sorting devices, as necessary. Note again, Hawkins which shows multiple paths (15) to multiple bins)

As described in Claim 46;

16. said forwarding device is oriented to receive a mixture of dissimilar elements from said supply chamber and to distribute the dissimilar elements to be sorted to all of said interchangeable mechanical sorting devices (again, note that dissimilar elements are sorted by Grafius);

As described in Claim 47;

17. said supply chamber includes convergent sidewalls terminating at a low point of said supply chamber and having at said low point at least one opening for-permitting the passage therethrough of the elements to be

sorted (note that trough (24) mates with the supply chamber (30) and continues below so as to form convergent sidewalls which terminate at the trough base (26), which is essentially a low point of the supply chamber);

As described in Claim 48;

18. each of said interchangeable mechanical sorting devices when affixed to said basic supply module are further interconnected to said basic supply modules with an electrical connection for electrical communication therebetween and a pneumatic communication therebetween (note that it would have been obvious to connect such items, otherwise, they would not work),

19. and further wherein said electrical and said pneumatic connections are facilitated with rapid disconnect connectors (again, note that ordinary three prong electrical plugs are considered to be rapid disconnectors);

As described in Claim 49;

20. a transport module for selective mating with an independent movement from said basic supply module to facilitate the removal and the installation of said interchangeable mechanical sorting device on said basic supply module (again, it is considered to be obvious to provide a mobile platform for making a stationary module portable);

As described in Claims 50 and 55;

21. said basic supply module includes a set of rails thereon;

22. said transportation module includes a set of rails thereon;

23. said transport module includes a set of rails thereon;

24. when said transport module is mated to said basic supply module, said sets of rails are in alignment such that said interchangeable mechanical sorting device is translatable along said rails to selectively reposition said interchangeable mechanical sorting device between said basic supply module and said transport module;

(Note that it is considered obvious to use rails to make a module mobile. See, for example, Rude et al, which shows a vibratory hopper and associated forwarding devices (350), for example.)

As described in Claim 51;

25. said transport module includes a turntable upon which said set of rails is mounted, said turntable and said set of rails are of sufficient size to support two of said interchangeable mechanical sorting devices therealong, and said turntable is functional to rotate in at least 180 degrees about a vertical axis in a substantially horizontal plane;

(Again, note that it would have been obvious to provide a turntable so as to provide an easy way of changing direction for a rail equipped module).

As described in Claim 52;

26. said transport module includes a latch to secure said transport module to said basic supply module when said respective sets of rails are in alignment; (Again, note that it would have been obvious to provide a hitch to tie two modules together, as it is well known in the railroad

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industry to hitch two or more modules together. See also Bond, cited in the parent case and the IDS of this case, which shows a hitch (4) in figure 2.)

As described in Claim 53;

27. said basic supply module includes a single supply chamber; and

28. a plurality of interchangeably mechanical sorting devices and a plurality of transport units adapted to feed the same type and size of elements supplied by said forwarding device from said single supply chamber (see prior discussion);

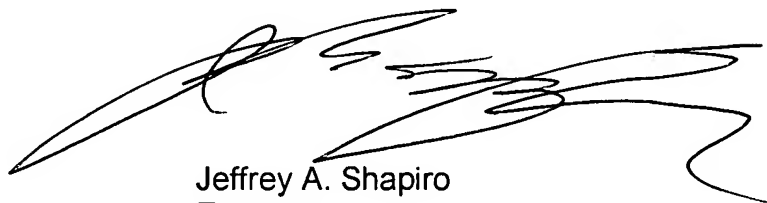
Applicant's representative is encouraged to contact the Examiner should there be any questions regarding this Action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey A. Shapiro whose telephone number is (703)308-3423. The examiner can normally be reached on Monday-Friday, 9:00 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald P. Walsh can be reached on (703)306-4173. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

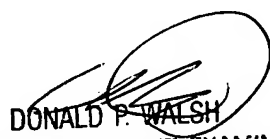
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-1113.



Jeffrey A. Shapiro  
Examiner  
Art Unit 3653

October 15, 2003



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